

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the subject application.

1-4. (Cancelled)

5. (Previously Presented) The endoscope imaging system according to Claim 10, wherein the video signal processing circuit provides an enlarge/reduce processing function for performing horizontal enlargement or reduction based on a ratio between the first frequency and the second frequency.

6. (Previously Presented) The endoscope imaging system according to Claim 5, wherein the image processing unit further comprises:

superimposing means for superimposing an externally input image signal on an image-captured signal processed in the video signal processing circuit; and

superimposing position control means for controlling a superimposing position of the externally input image signal in coordination with the image pickup element.

7. (Cancelled)

8. (Cancelled)

9. (Previously Presented) The endoscope imaging system according to claim 11, wherein the image pickup system is provided in a first camera head for an endoscope apparatus, and the second image pickup system is provided in a second camera head for an endoscope apparatus.

10. (Currently Amended) An endoscope imaging system comprising:
an endoscope apparatus and an image processing unit, wherein the endoscope apparatus detachably connects to the image processing unit;
wherein the endoscope apparatus comprises:

an image pickup system for capturing the image of a subject, the image pickup system comprising:

an image pickup element with one image-capture surface constructed with a plurality of scanning lines and driven by a pickup drive signal, wherein each of the plurality of scanning lines comprise a first number of pixels;

a drive circuit for generating and outputting the pickup drive signal to the image pickup element, the pickup drive signal comprising a first frequency based on the first number of pixels for sequentially reading an image signal captured on the image-capture surface of the image pickup element for every scanning line; and

a frequency dividing circuit which divides a clock signal at a preset frequency and supplied by the image processing unity to generate a driving clock signal for the drive circuit at the first frequency used by the drive circuit to generate and output the pickup drive signal; and

wherein the image processing unit comprises:

a line memory having a memory capacity, which can store one scanning line of image-captured signals read from the image pickup element and written to the line memory;

an oscillator for generating the clock signal having the preset frequency; and

a video signal processing circuit for performing video signal processing on the image-captured signals stored in the line memory and read from the line memory with a reading signal at a second frequency; and

wherein the image pickup system endoscope apparatus further comprises:

a writing signal generating circuit for generating and outputting a writing signal at the first frequency to the line memory for writing the image-captured signal to the line

memory, which first frequency writing signal derived from the clock signal with the preset frequency; and

a reading signal generating circuit for generating and outputting a reading signal with a second frequency, which is higher than the first frequency, to the line memory for reading image-captured signals stored in one scanning line therein, which second frequency reading signal derived from the clock signal with the preset frequency.

11. (Previously Presented) An endoscopic imaging system comprising and endoscope apparatus and a camera control unit;

wherein the endoscope apparatus comprises an image pickup system for imaging a subject, said image pickup system comprising:

a first image pickup unit with a first image pickup element with one image-capture surface for capturing a plurality of scanning lines, wherein each scan line of the plurality of scanning lines comprises a first number of pixels, the first image pick-up unit comprising:

a first drive circuit for generating and outputting a first drive signal for the first image pickup unit to sequentially read each scanning line of an image captured by the one image capture surface of the first image pickup element, wherein the first drive signal oscillates at a first frequency correlated to the first number of pixels;

a first frequency dividing circuit which divides a clock signal having a preset frequency to generate and output a first clock signal at a first frequency, which first clock signal is provided to the first drive circuit to generate the first drive signal; and

a first writing signal generating circuit for generating and outputting a first writing signal using the first clock signal at the first frequency to sequentially write each scanning line of an image-captured by the one image capture surface of the first image

pickup element, wherein the first writing signal oscillates at the first frequency of the first clock signal; and

a second image pickup unit with a second image pickup element comprising one image-capture surface for capturing a plurality of scanning lines, wherein each scan line of the plurality of scanning lines comprises a second number of pixels, which is larger than the first number of pixels, the second image pickup unit comprising:

a second drive circuit for generating and outputting a second drive signal for the second image pickup unit to sequentially read each scanning line of an image captured by the one image capture surface of the second image pickup element, wherein the second drive signal oscillates at a second frequency correlated to the second number of pixels;

a second frequency dividing circuit which divides the clock signal having a preset frequency to generate and output a second clock signal at the second frequency, which second clock signal is provided to the second drive circuit to generate the second drive signal; and

a second writing signal generating circuit for generating and outputting a second writing signal using the second clock signal at the second frequency to sequentially write each scanning line of an image-captured by the one image capture surface of the second image pickup element, wherein the second writing signal oscillates at the second frequency of the second clock signal;

wherein the camera control unit comprises:

a line memory for sequentially storing image-captured signals for one scanning line one of the first and second image pickup units in coordination with a corresponding one of the first and second writing signals connected to the camera control unit;

a clock for generating a clock signal at said preset frequency for use by the first and second image pickup units;

a reading circuit for reading image-captured signals for one scanning line which are output and stored in the line memory using the second frequency signal; and

a video signal processing circuit for performing video-signal processing on the image-captured signals read from the line memory by the reading circuit using the second frequency signal; and

wherein the camera control unit detachably connects to the endoscope apparatus.